



Facility upgrades its automation and protection systems

Location:

Northeast

Segment:

Hydroelectric

Problem:

Obsolete control system

Solution:

Hydro facility automation and protection upgrade

Results:

PLC control system, protection design, governor and exciter systems.

Project overview

This hydro facility consists of two 9500kVA turbine generators operating at 4.16kV. The system also consists of multiple remote controlled gate houses.

Eaton® was awarded a turnkey contract as the Electrical & Control Equipment (ECE) contractor to design, supply and install the upgraded protection and control systems for the facility.

Eaton's complete overhaul of the controls systems enhances the ability of the utility to remotely monitor the condition and status of the generating plant. Resulting in faster response times to plant issues and greatly shortened start-up and shut-down times.

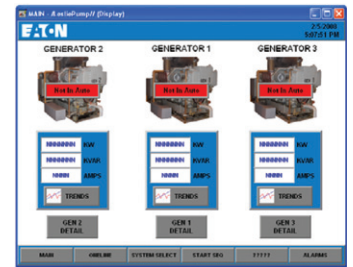
Project scope

For this project Eaton supplied the following:

- Generator protection
- Transformer protection
- Station service protection
- Governor upgrades
- Excitation systems
- Head gate monitoring and control
- Project management
- New PLC control system with HMI and remote monitoring
- Communication system

As part of the turnkey solution Eaton provided:

- PLC and relay panels
- Static excitation systems
- Governor hydraulic valve replacement
- Governor controls replacement
- Generator automatic synchronizing and local control panel
- PLC, HMI, SCADA
- Station alarming
- Process instrumentation
- Installation
- Testing commissioning and training



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